

NJDEP-BNPC Stormwater Audit Questions [10-15-2014]

I. General Information

A. Municipal Information

1. Municipality name:
2. Date of audit:
3. Person(s) interviewed:
4. Title(s):
5. Phone number and email address:
6. How many FTEs are available for implementation of the stormwater program?

DEP Staff Info:

1. Name(s):
2. Title(s):

B. Shared Services

1. If the municipality shares services, does it have a written contract/agreement outlining the sharing of these services?
2. If there is no contract, how does the municipality guarantee that these services will be performed?
3. Does the contract/agreement contain a description of the roles and responsibilities of each municipality to ensure effective MS4 permit compliance?
4. Does the municipality receive or provide the shared service(s)?
5. Does the municipality use nonprofit organizations, watershed groups, or other community organizations to administer required elements of their MS4 permit?
6. Does the municipality supplement its DPW employees with contracted services or employees on a seasonal or full time basis?
7. Do you have additional comments regarding what works, what doesn't work, and any recommendations? (for informational purposes)

C. Stormwater Pollution Prevention Plan

On or before June 1, 2009, the Tier A municipality shall have revised their SPPP

1. What was the date of the last revision to the SPPP?
2. What changes have been made to the SPPP?
3. Were the changes subject to the public notice and public input?
4. Are the stormwater team members and their contact information up to date?

II. Permit Implementation

A. Ordinances

Number of violations reported in annual report: _____

1. Which of the following ordinances have been adopted?
 - a. Pet Waste
 - b. Litter
 - c. Improper Disposal of Waste
 - d. Wildlife Feeding
 - e. Illicit Connection

- f. Private Storm Drain Inlet Retrofitting
 - g. Yard Waste Ordinance/Collection Program
 - h. Stormwater Control Ordinance
 - 2. Is the municipality using NJDEP's model ordinances without change?
 - 3. How are ordinance violations enforced? e.g. warnings, summons, etc.
 - 4. How are the violations tracked?
 - 5. Are any of these ordinances targeted toward problem areas? e.g. signs, enforcement, etc.
 - 6. Are the ordinances available for public review?
 - 7. Does the municipality offer seasonal recycling or disposal services to collect leaf litter, Christmas trees, yard debris, or other seasonal organic materials?
- B. Illicit Connection Elimination Program – Permit Section F6
- 1. Does the municipality's SPPP include an Illicit Connection Elimination Program?
 - 2. Which of the following components are included in the program?
 - a. Initial physical inspection of outfall pipes
 - b. Detect and eliminate illicit connections
 - c. Respond to complaints and reports of illicit connections
 - d. Routine inspection of outfall pipes
 - 3. Are areas of the MS4 prioritized based on incidents of illicit discharges, land use, dumping reports, etc.?
 - 4. Does the municipality conduct dry weather screening at outfalls to identify non-stormwater discharges?
 - 5. What equipment does the municipality use to find illicit discharges?
 - 6. What does the inspection include? (visual, chemical, odor, dye testing, etc.)
 - 7. If dry-weather flows are present, are they being sampled to determine potential sources of pollutants?
For what parameters?
 - 8. What are the results of the sampling and analysis?
 - 9. Who performs the illicit connection investigations?
 - 10. Does the municipality have a procedure for tracing the source of an active illicit discharge?
 - 11. Are these procedures written in a document or plan?
 - 12. Does the municipality utilize the Illicit Connection Investigation Report Form and the Closeout Investigation Form provided by the Department?
 - 13. If yes, have the forms been submitted to the Department with the Annual Report and/or been kept on record with the SPPP?
 - 14. What are the municipality's enforcement procedures for dealing with illicit connections?
 - 15. Does the municipality have a database (or other method) to track locations of illicit discharges, spills, and illegal dumping?
 - 16. What reporting procedures has the municipality developed to receive complaints and reports of illicit connections?
 - 17. What type of training do field staff (e.g., storm sewer maintenance crews, street sweepers) receive on spill response and Illicit Discharge Detection and Elimination?
 - 18. Has the municipality made any changes to the monitoring program based on past results and experience?
 - 19. How are monitoring results used in the illicit connection screening process?

Wet Weather Outfall Screening and Monitoring (For informational purposes)

1. Does the municipality conduct wet weather screening at outfalls to characterize stormwater flows from the MS4?
2. Are parts of the permit area prioritized for screening based on incidents of illicit discharges, land use, dumping reports, etc.?
3. What parameters are being tested?
4. What types of records are kept?
 - Analytical results
 - Date and duration (in hours) of the storm events sampled (rainfall data)
 - Rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff (rainfall data)
 - Duration (in hours) of the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event (rainfall data)
 - Estimate of the total flow of the discharge sampled (stage and velocity)
5. How are monitoring results used in the illicit connection screening process?

C. Storm Drain Inlet Retrofitting

1. How does the municipality ensure storm drain inlets are retrofitted as required by the permit?
2. Is storm drain inlet retrofitting required as part of the bid package for municipal street repaving projects?
3. Does the municipality require storm drain inlet retrofitting when utility work that comes in direct contact with storm drain inlets is conducted on municipally owned property?

III. Permit Implementation – Inventory

A. Stormwater Facility Inventory

Stormwater Management Structures

1. Has the municipality inventoried the type and location of private stormwater management structures?
2. Has the municipality inventoried the type and location of public stormwater management structures?
3. Is information regarding stormwater infrastructure maintained in a database or mapping system?
4. What types of data are maintained?
 - Type of structure or asset
 - Location (address, latitude/longitude, state plane coordinates)
 - Photo
 - Design/Build Date
 - Date last inspected
 - Date last cleaned/maintained
 - Ownership (private and/or other public entity)
5. Has the municipality completed an inventory of all non-residential facilities discharging to the stormwater system?

B. MS4 Outfall Pipe Mapping

Infrastructure Mapping and Characterization

1. Does the municipality have a map that shows the locations of the ends all MS4 outfalls?
2. Does the municipality's map include any of the following?
 - a. Inlets
 - b. Storm drain conduits
 - c. Stormwater facilities
 - d. Receiving water bodies
 - e. Catch basins
 - f. Nonstructural stormwater controls
 - g. Green infrastructure
3. Is the map readily available to personnel who respond to illicit discharge incidents or conduct maintenance?
4. Is the map available to emergency responders?
5. Is the map in hard copy format only or is it also in a geographic information system (GIS)?

C. Storm Drain Inlet Labeling

1. Does the municipality have a storm drain labeling program?
2. Is the public involved in the storm drain inlet labeling program?
3. Are catch basins and other inlet structures marked so that the public knows they drain to surface waters?

IV. Permit Implementation – Inspection and Maintenance

A. Stormwater Facility Inspection and Maintenance

Municipally owned and operated facilities (excluding catch basins)

1. Does the municipality have maintenance and inspection schedules for stormwater facilities?
2. Does the municipality maintain a log of inspections, maintenance, and repairs for stormwater facilities?
3. Does the municipality have a dedicated inspection staff?
4. What are the procedures for ensuring that maintenance issues are reported by inspectors? Is the municipality using the stormwater facility maintenance form (SPPP Form 13) provided by the Department?
5. Does the municipality assess fees to fund inspections or maintenance for stormwater facilities not owned or operated by the municipality?
6. Have stormwater management structures been assessed to determine whether retrofitting could provide additional benefits?
7. How is vegetation maintained in grassed swales, rain gardens, pond perimeters, and other vegetated stormwater controls?
8. Are maintenance activities recorded in the Stormwater Facility Inventory?

Privately owned and operated facilities (for informational purposes)

1. Does the municipality require maintenance agreements for all projects with post-construction stormwater facilities?
2. Does the municipality inspect private facilities or require inspections by owner/operators?

3. If the municipality performs the inspections, how often are they performed?
 - a. If owner/operators are required to inspect and maintain their stormwater facilities, how is this authorized?
 - Through a MOU?
 - Through conditions of approval?
 - Through another type of agreement?
4. How does the municipality ensure inspections of post-construction stormwater facilities are occurring?
 - b. Does the municipality send reminder notices?
 - c. Does the municipality require the owner/operator to submit inspection reports?
5. Are maintenance activities recorded in the Stormwater Facility Inventory?

Enforcement

1. How does the municipality require proper maintenance and repair after the inspection?
2. What types of enforcement actions are provided by ordinance (e.g., notices of violation, abatement)?
3. Is the municipality's enforcement authority limited (e.g., limits on the dollar amount of fines, inability to issue civil penalties)?
4. In instances of noncompliance, does the municipality have a formalized enforcement procedure?
5. Are enforcement procedures different for residential and commercial development?
6. How was the enforcement procedure developed?
7. Is it used?
8. Is it effective?
9. Who is authorized to apply various enforcement procedures (e.g., NOVs, fines)?
10. What is the most common method of gaining compliance (e.g., NOVs, fines, abatement)?
11. Are there any discharges into the MS4 that are not under the municipality's jurisdiction (e.g. other municipalities, NJDOT, public buildings)?
12. Do any of these discharges negatively impact the MS4?

B. Catch Basins

1. Does the municipality have a schedule for routine maintenance or cleaning of catch basins?
2. How many are cleaned and how often?
3. Has the municipality targeted certain areas for more frequent maintenance?
4. What are the criteria for targeting certain areas?
5. What is the municipality's goal for how many basins are inspected and cleaned each year?
6. How does the municipality track and record cleaning and maintenance needs?
7. What information is documented?
8. Does the municipality track which catch basins are cleaned, how much material is removed, and so forth?
9. How does the municipality use the data collected to further its program or evaluate program effectiveness?
10. Are the data used to help prioritize cleaning frequency?
11. Are they used to identify areas for targeted outreach?
12. What are the municipality's procedures for disposing of waste removed from catch basins or storm drains?

13. During the cleaning process does the municipality implement measures to prevent material from potentially discharging to surface water?
14. If the material is removed using a wet vacuum, how is the material dewatered?
15. How is the decanted water disposed?
16. Does the municipality have a schedule for routine maintenance or inspection of storm drain pipes?
17. What are the municipality's maintenance procedures for cleaning clogged storm drain pipes?

C. Street Sweeping Program

1. Does the municipality own street sweeping equipment?
2. If no, does the municipality contract or share services to fulfill the street sweeping requirements?
3. What is the schedule for street sweeping as required by the Tier A Municipal Stormwater permit?
4. Do the municipality's street sweepers use vacuums?
5. How is street sweeping debris disposed?
6. If the debris is dewatered, how is this done?
7. How is the decanted water disposed?
8. How does the municipality track and record the amount of street sweeping debris collected?
9. How does the municipality use the data collected to evaluate program effectiveness?

D. Outfall Pipe Stream Scouring

1. Does the municipality have a stormwater outfall pipe scouring detection, remediation, and maintenance program?
2. Has the municipality identified and prioritized areas of stream scour as a result of stormwater discharges?
3. Who is responsible for conducting inspections for outfall pipe scouring?
4. How often are inspections conducted to find cases of outfall pipe scouring?
5. Does the municipality document inspections using the form provided by the Department (SPPP Form 14)?
6. How many cases of stream scouring have been remediated in the past calendar year?
7. What control measures are implemented to decrease or remediate outfall pipe stream scouring?
 - a. How are they documented or logged?
 - b. Has the municipality implemented green infrastructure for this purpose?
 - c. Has the municipality evaluated the effectiveness of remediation measures?
8. Are instances of scouring identified on the municipality's inventory map?
9. Are all outfalls identified on the MS4 outfall pipe map inspected for scouring on a regular basis?

V. Permit Implementation – Maintenance Yard Operations

A. De-icing Material and Sand Storage

1. What types of deicing agents does the municipality use?
2. How are deicing agents, sand, or other materials stored?
3. Is the material covered and/or bermed to prevent runoff?

B. Fueling Operations

1. Do municipal fueling areas include signs prohibiting the topping off of vehicles, mobile fuel tanks, and fuel storage tanks?

2. During bulk transfer of fuels, are temporary berms used to prevent fuel leaks from entering the storm sewer inlets?

C. Vehicle Maintenance

1. Is vehicle maintenance performed indoors on a paved floor?
2. If no, are portable tents and drip pans used to protect the area from stormwater runoff?

D. Good Housekeeping Practices

1. Are all containers clearly marked and labeled?
2. Are all containers kept indoors?
3. If no, are they covered and placed on spill platforms or in secondary containment areas?
4. Are spill kits available on site to respond to spill incidents?

E. Equipment and Vehicle Washing

1. Does the municipality wash vehicles and equipment on site?
2. How do maintenance yards handle vehicle wash wastewater?
3. Does the municipality maintain a record of where and when equipment washing occurs?
4. If the municipality utilizes an underground storage tank for vehicle wash wastewater,
 - a. Does the tank meet the construction standard for USTs?
 - b. How often is the UST tested for leaks?

VI. Permit Implementation – Stormwater Management

A. Municipal Stormwater Management Plan

Planning Documents

1. Has a Stormwater Management Plan been developed?
2. If a Stormwater Management Plan has not been developed, what guidance does the municipality use to implement components of the Stormwater Management Plan described in N.J.A.C. 7:8-4.2?
3. When was the Municipal Stormwater Management Plan last re-examined?
4. When was it last adopted?
5. Is there a schedule for revision of the Stormwater Management Plan?
6. How are internal and external stakeholders included in the development or revision of the Stormwater Management Plan?
7. Has the Stormwater Management Plan been altered based on identification of areas of concern? (e.g. flooding, stressed water bodies, infrastructure overload)
8. Does the Stormwater Management Plan include an organization chart listing responsible parties for each Stormwater Management Plan component?
9. Does the Stormwater Management Plan identify impaired waterways?
10. Is the Municipal Stormwater Management Plan the only planning mechanism that contains stormwater management considerations?
11. Is there an additional DEP approved watershed restoration and protection plan?
12. When was the last re-examination of the master plan?
13. Does the master plan include elements encouraging the control of water quality or quantity (e.g., flooding) from existing or new developments?

14. Does the master plan include elements to encourage open space for water quality benefit? For flood control?
15. Does the master plan include elements to encourage protection of natural features (such as wetlands, buffer strips, etc.) and/or the implementation of green infrastructure?
16. Does the master plan include elements to encourage minimization of impervious surfaces?

Soil Conservation District Coordination

1. Does the municipality have additional requirements for soil erosion and sediment control beyond the scope of the Soil Conservation District?
2. Is the municipality exempt from soil erosion and sediment control standards?
3. If yes, does the municipality defer to the Soil Conservation District?
4. Does the municipality consult with the Soil Conservation District on construction projects?

Water Quality and Groundwater Recharge (For informational purposes)

1. Has the municipality documented environmental, water quality, stream corridor, habitat, or other types of improvements as a result of implementation of the Stormwater Management Plan?
2. Has the municipality estimated reductions in pollutant loadings from the MS4 or other quantifiable water quality benefits expected as the result of the municipal stormwater program?
3. Is there a process to evaluate pre-2004 BMPs to determine their effectiveness for water quality improvement?
4. Does the municipality evaluate the impacts on groundwater recharge for BMPs constructed before 2004?
5. Is the municipality participating in any watershed planning efforts?
6. Is the municipality implementing any components of the watershed plan?

B. Stormwater Control Ordinance

1. Does the stormwater control ordinance (SCO) allow exemptions in accordance with N.J.A.C. 7:8-4.6?
 - a. What exemptions does the municipality's stormwater control ordinance allow?
 - b. Are mitigation measures in place for exemptions to the ordinance?
2. For municipally owned projects were nonstructural strategies considered first before structural strategies?
3. Were any projects rejected/denied for not considering nonstructural strategies?
4. If yes, how many within the past calendar year?
5. Is any part of the municipality subject to the Pinelands Commission Comprehensive Management Plan?
6. If yes, after adopting the Pinelands SCO, was it sent to the county for review?
7. Is the SCO available on the municipality's web page?
8. If no, was it submitted to the Department?
9. How many linear development projects were exempted from design and performance standards during the past calendar year?
10. How many waivers from strict compliance (N.J.A.C. 7:8-5.2(e)) were granted during the past calendar year?
11. Has the municipality rejected any application for non-compliance with the SCO?
12. If yes, please provide an explanation.

13. What types of enforcement actions are specified in the stormwater control ordinance (e.g., notices of violation, “stop work” orders, fines)?
14. Does the stormwater control ordinance include an established, escalating enforcement policy?
15. How many enforcement actions have been taken in the past calendar year?
16. Are follow-up inspections conducted to verify compliance?
17. Are any other technical guidance documents used for selection of post-construction BMPs?
18. Does the municipality’s ordinance include specifications for innovative site design practices, such as low-impact development and other techniques that manage runoff on-site in addition to the nine nonstructural strategies identified in the stormwater control ordinance?

C. Review of Major Development for Stormwater Management

Pre-Construction Plan Review Procedures

1. Does the municipality consider such regional concerns as smart growth initiatives, green infrastructure, watershed plans, and other larger-scale planning efforts to ensure that each new development and redevelopment plan is consistent with the goals of these initiatives?
2. Are you reviewing projects for nonstructural strategies first?
3. Other than the recommended guidance, has the review engineer used other guidance for stormwater management?
4. If yes, what guidance is used?
5. Does the municipality hold pre-application meetings on any construction projects?
6. Are stormwater and erosion/sediment control requirements addressed at these meetings?
7. Is there any plan review coordination with other municipal departments such as smart growth, environmental commission, redevelopment, traffic engineering, etc.?
8. What is the municipality’s threshold for plan review? (For example, does the municipality review plans for all projects disturbing greater than 1 acre, or do they use another threshold?)
9. Do the plan reviewers verify whether the project applicant has submitted an application for a 5G3 or other Department permits?
10. Do plan reviewers use specific criteria or a checklist when reviewing plans?
11. During the review process, does the municipality consider whether the construction project discharges to a TMDL/impaired water?
12. If yes, does the municipality require additional measures to mitigate the pollutants of concern?
13. Do RFPs or contracts for municipal projects include language specifying stormwater requirements?
14. Are inspection and maintenance requirements specified in the municipal contract?
15. What oversight does the municipality implement to ensure the contractor is implementing all requirements appropriately and adequately?
16. What penalties are in place to require compliance from the municipality’s contractors?

Stormwater BMP Standards

1. Does the municipality use the NJ Stormwater Management BMP Manual to ensure site plans comply with N.J.A.C. 7:8 requirements?
2. Does the municipality promote source control and site design standards to reduce the generation of pollutants in addition to treatment BMPs?
3. If so, how?

4. Are project applicants encouraged or required to go beyond the minimum requirement for groundwater recharge or infiltration, such as infiltration basins, drywells, bioretention basins and sand filters without underdrains, etc., where possible?
5. Does the municipality review soil testing logs for infiltration BMPs?
6. Does the municipality's approval process require stormwater BMP maintenance plans?

Construction Site Inspections

1. Does the municipality inspect the following phases of construction related to stormwater management? (check all that apply)
 - ☐ Clearing, grubbing, and site preparation
 - ☐ Mass grading and public infrastructure/utility construction
 - ☐ Building construction and final grading
 - ☐ Final stabilization
 - ☐ Other (please specify)
2. Do the inspectors use a checklist or inspection form during each inspection?
3. How many inspectors does the municipality use to evaluate stormwater management at construction sites?
4. Does this number appear adequate to assess active construction occurring in the permitted area?
5. Does the municipality target inspections during or immediately after wet weather events for stormwater facility performance?
6. If yes, what size rain event triggers an inspection and how soon after a rain event is the inspection conducted?

D. Inventory Maintenance

Post-Construction BMP Inventory

1. Does the municipality annually update its inventory to include newly constructed BMPs?
2. What is the municipality's process for updating its inventory?
3. What information is collected?
 - ☐ Type of structure or asset
 - ☐ Location (address, latitude/longitude)
 - ☐ Photo
 - ☐ Date built
 - ☐ Inspection Schedule
 - ☐ Maintenance Plan
 - ☐ Ownership (private and/or other public entity)
4. Who keeps the final approved construction and maintenance plans?
5. Who has access to the information?

Innovative and Retrofitted BMPs

1. Has the municipality instituted a pilot program to test and showcase innovative BMPs on public property or in public buildings?
2. Have any BMPs in the municipality been retrofitted in the past calendar year?
3. Has the municipality retrofitted any BMPs in the past calendar year?

E. Stormwater Management Training

Planning/Zoning Board Responsibilities

1. Are your planning and zoning boards aware of non-structural strategies?
2. What types of educational materials have been distributed to the planning and zoning boards regarding stormwater management requirements?
3. What type of stormwater management training do the planning and zoning boards receive?
4. How often is this training conducted?
5. How many planning board members have been trained in the past calendar year?
6. How many zoning board members have been trained in the past calendar year?

VII. Education

A. Local Public Education Program

Goals and Objectives

1. Did the municipality meet the program requirements for Local Public Education?
2. What is the municipality's strategy for meeting the requirements?
3. What does the educational program include?
 - a) Ordinance requirements
 - b) Landscaping practices – i.e., native plants, drought tolerant plants, rain barrels
4. Please provide details about the municipality's Local Public Education Program?
5. What additional types of public outreach activities does the municipality utilize to reach the public?

Recycling and Disposal (for informational purposes)

1. For what types of household hazardous waste does the municipality manage recycling and disposal?
2. Does the municipality have a household hazardous waste collection center for the public?
3. Are records of the quantity of materials collected maintained by type of material?
4. How does the municipality notify the public of these sites?
5. Does the municipality have special household hazardous waste collection days?

Message Development and Implementation

1. Has the municipality identified any specific messages for stormwater outreach?
2. Has the municipality used outreach materials or methods other than DEP sources?
3. Are different messages used for different target audiences? (i.e., children, homeowners, industry, etc.) Or is one central message used for all?
4. Do the messages educate about behavior changes that the audience can make to contribute to a solution?
5. Does the municipality have educational materials to make residents aware of the ordinances?
6. Have outreach efforts been tailored to the municipality's demographics?
7. Have the municipality's outreach efforts targeted industries or commercial businesses that have the potential to contaminate stormwater?
8. Has the municipality evaluated the success of its outreach efforts?
9. Have any changes been made to the outreach strategy or materials used based on an evaluation of effectiveness?

Public Participation Activities

1. What opportunities does the municipality give to the public to review and comment on any changes to the SWMP, such as public comment via a Web site, a public meeting, or a stormwater advisory group?
2. What volunteer opportunities (i.e., stream cleanups, storm drain stenciling, outfall mapping) does the municipality coordinate or publicize to encourage the public to participate in stormwater-related activities?
3. Does the municipality sponsor or promote any of the following activities?
 - Beach/stream/lake cleanups
 - Volunteer stream monitoring
 - Stream clean-ups or equivalent activities
 - Stormwater citizen panel
 - Biological monitoring
 - Rain garden/rain barrel workshop
4. Does the community have an active watershed association?
5. If yes, with what type of activities does the watershed association assist the municipality?

B. Annual Employee Training

General Stormwater Training

1. What type of stormwater training is provided to municipal employees?
2. Are municipal employees educated on stormwater topics applicable to their job duties?
3. What types of activity-specific training is provided to field staff? For example, maintenance yard BMPs, street sweeping, stormwater ordinances, illicit connection elimination, storm drain retrofitting, stream scouring, etc.
4. Are construction officials trained on the post construction requirements?
5. Are municipal employees (code enforcers, police officers) trained on stormwater ordinance provisions?
6. Are plan reviewers trained on erosion and sediment control BMPs and requirements?
7. How often is training conducted?
8. Have all applicable employees been trained?
9. What additional stormwater training or materials does the municipality believe would be helpful?

Training For Stormwater Management Review and Inspection Staff

1. Are plan reviewers trained on BMPs and requirements?
2. What type of training do employees performing “as built” and post-construction inspections receive?
3. How often are the trainings conducted?
4. How many municipal employees have been trained in the past calendar year?
5. How many municipal employees have been trained since January 1?
6. What type of training or education does the municipality require for contractors and engineers on post-construction requirements?

Municipal Employees

1. Have standard operating procedures or their equivalent been developed to ensure that municipal field staff integrate stormwater quality BMPs into their daily activities?

2. What reference materials or guidance documents are provided to field staff regarding BMP specifications and details? (Maintenance plans)
3. How does the municipality ensure that employees are fulfilling their responsibilities as outlined in standard operating procedures? Do managers provide oversight on a regular basis?

Funding considerations –

1. Does the program have a dedicated source of funding to support plan review staff and inspectors?
2. Does the municipality offer financial incentives to support post-construction stormwater goals (e.g., programs to support redevelopment, such as enterprise zones, or municipal tax credit)?

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